



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



APR 11 2013

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Notice of Minor Title V Permit Modification**
District Facility # S-1128
Project # 1131263

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Chevron USA Inc is proposing a Title V minor permit modification to incorporate the recently issued S-1128-116-63 and '934-8 into the Title V operating permit. The ATCs authorized the addition of Liquefied Petroleum Gas (LPG) as an alternative pilot fuel for flares S-1128-116 and '934. Additionally, updated Rule 4401 conditions are added to S-1128-116.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued S-1128-116-63 and '934-8, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

Enclosures

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
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San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



APR 11 2013

Jason Donchin
Chevron USA Inc
PO Box 1392
Bakersfield, CA 93302

**Re: Notice of Minor Title V Permit Modification
District Facility # S-1128
Project # 1131263**

Dear Mr. Donchin:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued S-1128-116-63 and '934-8 into the Title V operating permit. The ATCs authorized the addition of Liquefied Petroleum Gas (LPG) as an alternative pilot fuel for flares S-1128-116 and '934. Additionally, updated Rule 4401 conditions are added to S-1128-116.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued S-1128-116-63 and '934-8, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

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TITLE V APPLICATION REVIEW

Minor Modification
Project #: S-1131263

Engineer: Richard Edgehill
Date: April 4, 2013

Facility Number: S-1128
Facility Name: Chevron USA Inc
Mailing Address: PO Box 1392
Bakersfield, CA 93302

Reviewed by ASUPRADE
APR 04 2013

Contact Name: Jason Donchin and Dave Bone
dbone@chevron.com
Phone: (661) 654-7150
Title: HES Manager (JD)
Lead Engineer: Richard Karrs

I. PROPOSAL

Chevron USA Inc (CUSA) is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct (ATCs) S-1128-116-63 and '-934-8 into the Title V permit. The ATCs authorized the addition of Liquefied Petroleum Gas (LPG) as an alternative pilot fuel for flares S-1128-116 and '-934. Additionally, updated Rule 4401 conditions are added to S-1128-116.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

The flares are authorized to operate at the following locations:

PTO#	Location
S-1128-116	Section 36, T30S, R22E
S-1128-934	Section 31, T29S, R22E

III. EQUIPMENT DESCRIPTION

S-1128-116-64: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383) & 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE

S-1128-934-9: 4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

Please note that current PTOs include the conditions listed below related to pilot emissions. Revisions and deletions in this project are as indicated (with deleted text in strikeout and new text underlined):

PTO S-1128-116-62

51. Permittee shall measure and maintain a daily record of flare pilot (LPG and natural gas) gas volumes, John Zink flare field sour gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rules 2020 and 2201] Y

PTO S-1128-934-7

20. ~~Emission rate from pilot gas shall not exceed any of the following: NO_x (as NO₂) - 68.0 lb/MMscf, VOC - 63.0 lb/MMscf, CO - 370.0 lb/MMscf, PM₁₀ - 8.0 lb/MMscf, or SO_x - 2.85 lb/MMscf. [District NSR Rule] Y~~
21. Permittee shall maintain daily and annual records of pilot (LPG and natural gas) fuel gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District NSR Rules 2020 and 2201] Y

The following new conditions were added to each draft PTO:

Emission rate from natural gas pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rule 2020] Y

Emission rate from propane pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Y

Draft PTO S-1128-116-64 includes all of the conditions of the current Title V PTO S-1128-116-62 except as indicated by comments in the table below:

Draft PTO S-1128-116-64	Current PTO S-1128-116-62	Comments
1-9	1-9	
10-12	45-47	
13	48	Revised DEL with LPG
14	49	Revised pilot fuel description
15	50	
16-27	10-21	
28-32	23-27	
33-74	22, 28-42	Updated Rule 4401 conditions
75-76	43,44	
77-78		natural gas/LPG emissions factors
79	51	Revised recordkeeping
80-81	52-53	

Draft PTO S-1128-934-9 includes all of the conditions of the current Title V PTO S-1128-934-7 except as indicated by comments in the table below:

Draft PTO S-1128-934-9	Current PTO S-1128-934-7	Comments
1-14	1-14	
15	15	Revised pilot fuel condition
16-19	16-19	
20,21	20	natural gas/LPG emissions factors
22	21	Revised recordkeeping

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including:

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and

3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

- I. Proposed Modified Title V Operating Permits
- II. Authorities to Construct
- III. Application
- IV. Previous Title V Operating Permits

Attachment A

Proposed Modified Title V Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1128-116-64

EXPIRATION DATE: 02/29/2016

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383) & 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE

PERMIT UNIT REQUIREMENTS

1. No modification to the 1Y Kaldair emergency flare shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Upon seven days prior written notice to the District, the 1Y Kaldair emergency flare may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4311] Federally Enforceable Through Title V Permit
3. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the permittee shall not be required to perform the monitoring and recordkeeping requirements otherwise required by this permit and Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of the 1Y Kaldair emergency flare, recordkeeping and monitoring requirements otherwise required by this permit and Rule 4311 shall resume. [District Rule 4311] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]
7. If the 1Y Kaldair emergency flare has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The Kaldair flare shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The air-assisted John Zink flare shall not discharge air contaminants into the atmosphere which exceeds 5% opacity or Ringelmann 1/4 for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The operation includes heat exchanger(s), gas/liquid separator(s), condensate tank(s), compressor(s), gas volume flow rate and temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. The system includes gas piping from vapor control systems 36W #1 TEOR S-1128-116, 31X TEOR S-1128-128, 36W #2 TEOR S-1128-130, 5Z/6Z TEOR S-1128-144, 31X tank battery S-1128-248, Mckittrick Diatomite TEOR S-1129-864, and 1Y TEOR S-1128-385, and TEOR flow back vapor collection from Tulare formation wells (previously used for disposal). [District Rule 2201] Federally Enforceable Through Title V Permit
12. John Zink flare field sour gas line shall be equipped with an operational flow meter. John Zink flare pilot gas line shall be equipped with an operational flow meter and pilot fuel flow rate shall not exceed 20,000 scf/day of natural gas or 5,580 scf/day (153.8 gal/day) of liquid petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
13. Kaldair flare pilot gas line shall be equipped with an operational flow meter, except when designated a DEU, and pilot gas flow rate shall not exceed 20,000 scf/day of natural gas or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
14. Only PUC quality natural gas or liquefied petroleum gas (LPG) shall be used as pilot gas in the flare. [District Rule 2020] Federally Enforceable Through Title V Permit
15. When operated, each flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520] Federally Enforceable Through Title V Permit
16. Operation of flares for other than maintenance and testing shall be limited to unforeseen electrical power outages or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) is not due to neglect or disregard of air pollution laws or rules; 2) is not intentional or the result of negligence; 3) is not due to improper maintenance; 4) does not constitute a nuisance; and 5) results in the use of equipment exempted from offsets by Rule 2201 to prevent or ameliorate an unsafe situation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The owner or operator shall notify the District of any emergency use of the flare within twenty four hours after confirmation that an actual flaring event has occurred. In the event that confirmation of an actual flaring event cannot be made, then the owner or operator shall notify the District no more than 24 hours after an alarm indicates that a flaring event may have occurred. [District Rule 1070 and 4311] Federally Enforceable Through Title V Permit
18. The permittee shall report to the District in writing within ten days following the emergency use of the flare(s). The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use, specifically including duration of flare operation and amount of gas burned. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit
19. Operation of each flare shall not exceed 200 hours per year for purposes of flare maintenance and testing. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The Kaldair flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (2442 lb NOx/year), 322,538 lb SOx/year, 0.708 lb PM10/MMBtu (24,190 lb PM10/year), 0.063 lb VOC/MMBtu (2263 lb VOC/year) and 0.37 lb CO/MMBtu (13,290 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
21. The air-assisted John Zink flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (672 lb NOx/year), 20,000 lb SOx/year, 0.708 lb PM10/MMBtu (3894 lb PM10/year), 0.063 lb VOC/MMBtu (622 lb VOC/year) and 0.37 lb CO/MMBtu (3656 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
22. Sulfur compound combustion emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801] Federally Enforceable Through Title V Permit
23. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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24. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
25. Each emergency flare shall be equipped with a functional continuous flame detection device to detect at least one pilot flame or to detect the presence of flare flame. [District Rule 4311] Federally Enforceable Through Title V Permit
26. Fugitive VOC emission rate from fugitive component counts of the TEOR vapor control system, calculated using U.S. EPA publication 453/R-95-017, Table 2-4, based on 50% VOC by weight of Total Organic Content (TOC), shall not exceed 268.3 lb/day. [District Rule 2210] Federally Enforceable Through Title V Permit
27. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit
29. If operator determines that the flow back system does not operate successfully, then the flow back system may be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Existing Tulare injection wells are authorized to operate as either flow back wells or injection wells until such a time as the DOGGR injection permit for the existing Tulare injection wells is terminated. Upon termination of the Tulare injection well permit by DOGGR, the existing Tulare injection wells will continue to operate as flow back wells only or be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407] Federally Enforceable Through Title V Permit
32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
33. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401] Federally Enforceable Through Title V Permit
34. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, Section 5 (as amended December 14, 2006). [District Rule 4401] Federally Enforceable Through Title V Permit
35. The annual inspection requirements of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt %) or less, as determined by the test methods in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
36. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Rule 4401 demonstrates the existence of a component with a major liquid leak, a component with a gas leak greater than 50,000 ppmv, or an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap or a second closed valve that is not closed at all times, except during attended operations as defined by Rule 4401 requiring process fluid flow through the open-ended lines. [District Rule 4401] Federally Enforceable Through Title V Permit
38. Gas and liquid leaks are as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
39. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
40. An operator shall not use any component with a leak as defined in Section 3 of Rule 4401, or that is found to be in violation of the provisions of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
41. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit
42. An operator shall comply with the requirements of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401] Federally Enforceable Through Title V Permit
43. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Rule 4401 at least once every year. [District Rule 4401] Federally Enforceable Through Title V Permit
44. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
45. In addition to the inspections required by Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
46. In addition to the inspections required by Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit
47. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401] Federally Enforceable Through Title V Permit
49. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
50. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401] Federally Enforceable Through Title V Permit
51. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit
52. Except for leaking critical components or leaking essential components subject to the requirements of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3 of Rule 4401, or remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
53. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] Federally Enforceable Through Title V Permit
54. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
55. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
56. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401] Federally Enforceable Through Title V Permit
57. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
58. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
59. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
60. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

61. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
62. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401] Federally Enforceable Through Title V Permit
63. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
64. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
65. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit
66. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Rule 4401 for a vapor control system which does not have a VOC destruction device. [District Rule 4401] Federally Enforceable Through Title V Permit
67. An operator seeking approval pursuant to Rule 4401 shall submit a written request and supporting information to the APCO. [District Rule 4401] Federally Enforceable Through Title V Permit
68. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.3 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
69. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
70. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit
71. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

72. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit
73. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type; the location, type, and name or description of each leaking component and description of any unit where the leaking component is found; The date of leak detection and the method of leak detection; For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; the date of repair, replacement, or removal from operation of leaking components; The identity and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; The inspector's name, business mailing address, and business telephone number; And the date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit
74. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4401] Federally Enforceable Through Title V Permit
75. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
76. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
77. Emission rate from natural gas pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
78. Emission rate from propane pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
79. Permittee shall measure and maintain a daily record of flare pilot (LPG and natural gas) gas volumes, John Zink flare field sour gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
80. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s), and shall make such listings readily available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
81. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1128-934-9

EXPIRATION DATE: 02/29/2016

SECTION: 31 TOWNSHIP: 29S RANGE: 22E

EQUIPMENT DESCRIPTION:

4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

PERMIT UNIT REQUIREMENTS

1. {649} Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
2. Demonstration of compliance with the visible emissions limit of this permit shall be conducted using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. {652} The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. {654} Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
6. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
7. {657} Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
8. {658} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
9. {659} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
10. {660} The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
11. {661} Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (d), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: CHEVRON USA INC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY

S-1128-934-9; Apr 4 2013 1:58PM -- EDGEHILLR

12. If flare is not operating, gas shall not be vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Gas flow rate to flare, except pilot fuel, shall not exceed 140,400 dscf per day. [District NSR Rule]
14. Gas flow rate to flare, except pilot fuel, shall not exceed 2,500,800 dscf per year. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Pilot fuel gas flow rate shall not exceed 20,000 dscf of natural gas per day or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
16. Concentration of sulfur (as H₂S) in gas flared shall not exceed 30,000 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H₂S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM-10: 6.4 lb/mmscf; NO_x (as NO₂): 54.4 lb/mmscf; VOC: 50.4 lb/mmscf; or CO: 296.0 lb/mmscf. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Emission rate from natural gas pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM10 - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
21. Emission rate from propane pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM10 - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
22. Permittee shall maintain daily and annual records of pilot (LPG and natural gas) gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Attachment B
Authorities to Construct

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1128-116-63

ISSUANCE DATE: 02/19/2013

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383) & 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE: AUTHORIZE LPG PILOT FUEL, ADD RULE 4401 CONDITIONS

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. No modification to the 1Y Kaldair emergency flare shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Upon seven days prior written notice to the District, the 1Y Kaldair emergency flare may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4311] Federally Enforceable Through Title V Permit
4. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
5. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the permittee shall not be required to perform the monitoring and recordkeeping requirements otherwise required by this permit and Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1128-116-63 : Apr 4 2013 1:49PM -- EDGEHILL : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. Upon recommencing operation of the 1Y Kaldair emergency flare, recordkeeping and monitoring requirements otherwise required by this permit and Rule 4311 shall resume. [District Rule 4311] Federally Enforceable Through Title V Permit
7. Records of all dates and times that this unit is designated as dormant or active shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]
8. If the 1Y Kaldair emergency flare has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010] Federally Enforceable Through Title V Permit
9. The Kaldair flare shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The air-assisted John Zink flare shall not discharge air contaminants into the atmosphere which exceeds 5% opacity or Ringelmann 1/4 for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operation includes heat exchanger(s), gas/liquid separator(s), condensate tank(s), compressor(s), gas volume flow rate and temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The system includes gas piping from vapor control systems 36W #1 TEOR S-1128-116, 31X TEOR S-1128-128, 36W #2 TEOR S-1128-130, 5Z/6Z TEOR S-1128-144, 31X tank battery S-1128-248, Mckittrick Diatomite TEOR S-1129-864, and 1Y TEOR S-1128-385, and TEOR flow back vapor collection from Tulare formation wells (previously used for disposal). [District Rule 2201] Federally Enforceable Through Title V Permit
13. John Zink flare field sour gas line shall be equipped with an operational flow meter. John Zink flare pilot gas line shall be equipped with an operational flow meter and pilot fuel flow rate shall not exceed 20,000 scf/day of natural gas or 5,580 scf/day (153.8 gal/day) of liquid petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
14. Kaldair flare pilot gas line shall be equipped with an operational flow meter, except when designated a DEU, and pilot gas flow rate shall not exceed 20,000 scf/day of natural gas or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
15. Only PUC quality natural gas or liquefied petroleum gas (LPG) shall be used as pilot gas in the flare. [District Rule 2020] Federally Enforceable Through Title V Permit
16. When operated, each flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520] Federally Enforceable Through Title V Permit
17. Operation of flares for other than maintenance and testing shall be limited to unforeseen electrical power outages or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) is not due to neglect or disregard of air pollution laws or rules; 2) is not intentional or the result of negligence; 3) is not due to improper maintenance; 4) does not constitute a nuisance; and 5) results in the use of equipment exempted from offsets by Rule 2201 to prevent or ameliorate an unsafe situation. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The owner or operator shall notify the District of any emergency use of the flare within twenty four hours after confirmation that an actual flaring event has occurred. In the event that confirmation of an actual flaring event cannot be made, then the owner or operator shall notify the District no more than 24 hours after an alarm indicates that a flaring event may have occurred. [District Rule 1070 and 4311] Federally Enforceable Through Title V Permit
19. The permittee shall report to the District in writing within ten days following the emergency use of the flare(s). The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use, specifically including duration of flare operation and amount of gas burned. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Operation of each flare shall not exceed 200 hours per year for purposes of flare maintenance and testing. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The Kaldair flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (2442 lb NOx/year), 322,538 lb SOx/year, 0.708 lb PM10/MMBtu (24,190 lb PM10/year), 0.063 lb VOC/MMBtu (2263 lb VOC/year) and 0.37 lb CO/MMBtu (13,290 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
22. The air-assisted John Zink flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (672 lb NOx/year), 20,000 lb SOx/year, 0.708 lb PM10/MMBtu (3894 lb PM10/year), 0.063 lb VOC/MMBtu (622 lb VOC/year) and 0.37 lb CO/MMBtu (3656 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
23. Sulfur compound combustion emissions shall not exceed 2000 ppmv as SO₂. [District Rule 4801] Federally Enforceable Through Title V Permit
24. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
25. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
26. Each emergency flare shall be equipped with a functional continuous flame detection device to detect at least one pilot flame or to detect the presence of flare flame. [District Rule 4311] Federally Enforceable Through Title V Permit
27. Fugitive VOC emission rate from fugitive component counts of the TEOR vapor control system, calculated using U.S. EPA publication 453/R-95-017, Table 2-4, based on 50% VOC by weight of Total Organic Content (TOC), shall not exceed 268.3 lb/day. [District Rule 2210] Federally Enforceable Through Title V Permit
28. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit
30. If operator determines that the flow back system does not operate successfully, then the flow back system may be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Existing Tulare injection wells are authorized to operate as either flow back wells or injection wells until such a time as the DOGGR injection permit for the existing Tulare injection wells is terminated. Upon termination of the Tulare injection well permit by DOGGR, the existing Tulare injection wells will continue to operate as flow back wells only or be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
32. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407] Federally Enforceable Through Title V Permit
33. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
34. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401] Federally Enforceable Through Title V Permit
35. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, Section 5 (as amended December 14, 2006). [District Rule 4401] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The annual inspection requirements of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt %) or less, as determined by the test methods in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
37. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
38. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Rule 4401 demonstrates the existence of a component with a major liquid leak, a component with a gas leak greater than 50,000 ppmv, or an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap or a second closed valve that is not closed at all times, except during attended operations as defined by Rule 4401 requiring process fluid flow through the open-ended lines. [District Rule 4401] Federally Enforceable Through Title V Permit
39. Gas and liquid leaks are as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
40. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
41. An operator shall not use any component with a leak as defined in Section 3 of Rule 4401, or that is found to be in violation of the provisions of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
42. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit
43. An operator shall comply with the requirements of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401] Federally Enforceable Through Title V Permit
44. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Rule 4401 at least once every year. [District Rule 4401] Federally Enforceable Through Title V Permit
45. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
46. In addition to the inspections required by Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

47. In addition to the inspections required by Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit
48. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit
49. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401] Federally Enforceable Through Title V Permit
50. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
51. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401] Federally Enforceable Through Title V Permit
52. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit
53. Except for leaking critical components or leaking essential components subject to the requirements of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3 of Rule 4401, or remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
54. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] Federally Enforceable Through Title V Permit
55. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
56. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
57. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401] Federally Enforceable Through Title V Permit
58. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
59. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

60. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
61. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401] Federally Enforceable Through Title V Permit
62. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
63. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401] Federally Enforceable Through Title V Permit
64. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
65. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
66. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit
67. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Rule 4401 for a vapor control system which does not have a VOC destruction device. [District Rule 4401] Federally Enforceable Through Title V Permit
68. An operator seeking approval pursuant to Rule 4401 shall submit a written request and supporting information to the APCO. [District Rule 4401] Federally Enforceable Through Title V Permit
69. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.3 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
70. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
71. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

72. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit
73. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit
74. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type; the location, type, and name or description of each leaking component and description of any unit where the leaking component is found; The date of leak detection and the method of leak detection; For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; the date of repair, replacement, or removal from operation of leaking components; The identity and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; The inspector's name, business mailing address, and business telephone number; And the date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit
75. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4401] Federally Enforceable Through Title V Permit
76. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
77. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
78. Emission rate from natural gas pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
79. Emission rate from propane pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
80. Permittee shall measure and maintain a daily record of flare pilot (LPG and natural gas) gas volumes, John Zink flare field sour gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
81. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s), and shall make such listings readily available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
82. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1128-934-8

ISSUANCE DATE: 02/19/2013

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: P O BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS: AUTHORIZE LPG PILOT FUEL

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
3. Demonstration of compliance with the visible emissions limit of this permit shall be conducted using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
4. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1128-934-8 : Apr 4 2013 1:49PM -- EDGEHILL : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

7. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
8. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
9. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
10. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
11. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
12. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
13. If flare is not operating, gas shall not be vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Gas flow rate to flare, except pilot fuel, shall not exceed 140,400 dscf per day. [District NSR Rule]
15. Gas flow rate to flare, except pilot fuel, shall not exceed 2,500,800 dscf per year. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Pilot fuel gas flow rate shall not exceed 20,000 dscf of natural gas per day or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
17. Concentration of sulfur (as H₂S) in gas flared shall not exceed 30,000 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H₂S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM-10: 6.4 lb/mm scf; NO_x (as NO₂): 54.4 lb/mm scf; VOC: 50.4 lb/mm scf; or CO: 296.0 lb/mm scf. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Emission rate from natural gas pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
22. Emission rate from propane pilot gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
23. Permittee shall maintain daily and annual records of pilot (LPG and natural gas) gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit

Attachment C
Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org

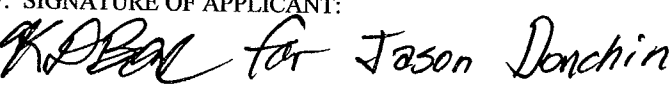
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APR 03 2013

SJVAPCD
Southern Region

Permit Application For:

[] ADMINISTRATIVE AMENDMENT [X] MINOR MODIFICATION [] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: Chevron U.S.A. Inc. (CUSA)	
2. MAILING ADDRESS:	
STREET/P.O. BOX: PO Box 1392	
CITY: Bakersfield	STATE: CA 9-DIGIT ZIP CODE: 93302
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:	
STREET: Heavy Oil Western Source – Cymric	CITY: _____
Sec. 31 T29S R22E	INSTALLATION DATE: 2nd Quarter 2013
¼ SECTION Sec. 36 T29S R21E	
4. GENERAL NATURE OF BUSINESS: Oil and gas production	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)	
Implement ATCs No. S-1128-116-63 and -934-8 issued pursuant to Project #S-1130055.	
6. TYPE OR PRINT NAME OF APPLICANT: Jason Donchin	TITLE OF APPLICANT: SJVBU HES Manager
7. SIGNATURE OF APPLICANT: 	DATE: 04/02/2013
	PHONE: (661) 654-7150 FAX: (661) 654-7004 EMAIL: dbone@chevron.com

For APCD Use Only: **No \$**

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: S-1131263 FACILITY ID: S-1128

Title V- Minor Mod

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ SIGNIFICANT PERMIT MODIFICATION
☒ MINOR PERMIT MODIFICATION

☐ ADMINISTRATIVE
AMENDMENT

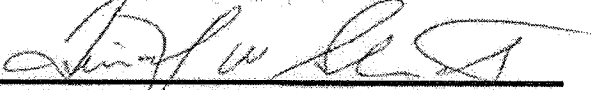
COMPANY NAME: Chevron U.S.A. Inc. (CUSA)	FACILITY ID: S-1128
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Chevron U.S.A. Inc. (CUSA)	
3. Agent to the Owner: N/A	

II. COMPLIANCE CERTIFICATION

(READ EACH STATEMENT CAREFULLY AND INITIAL ALL CIRCLES FOR CONFIRMATION):

- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- ☒ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- ☒ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:


Signature of Responsible Official

Timothy Schmidt

Name of Responsible Official (please print)

Facilities Supervisor

Title of Responsible Official (please print)

April 2, 2013

Date

Implement ATCs S-1128-116-63 & -934-8



Jason Donchin
Health, Environment, and
Safety Manager

San Joaquin Valley SBU
Chevron North America
Exploration and Production
P.O. Box 1392
Bakersfield, CA 93302

RECEIVED

APR 03 2013

SJVAPCD
Southern Region

HAND-DELIVERED
Via Southern Region

April 2, 2013

Mr. James Swaney
Permit Services Manager
San Joaquin Valley Air Pollution Control District
1990 E. Gettysburg Ave.
Fresno, CA 93726-0244

**RE: Title V Minor Modification – ATC #s S-1128-116-63 & ‘-934-8
Cymric Oil Field, Heavy Oil Western Stationary Source**

Dear Mr. Swaney:

Chevron U.S.A. Inc. (CUSA) is proposing to implement Authorities to Construct (ATC) S-1128-116-63 & ‘-934-8 issued on March 5, 2013 upon completion of Project #S-1130055. These ATCs authorize the use of liquified petroleum gas (aka LPG or propane) for pilot fuel at Chevron’s 36W and 31X flares.

Attached are the following forms and documents:

- Application for Title V Modification (TVFORM-008)
- Title V Compliance Certification (TVFORM-009)
- Copy of the referenced ATCs

Please process the attached application to convert the subject ATCs to Permits to Operate.

If you have any questions or require additional information, please contact Dave Bone of my staff at (661) 654-7150.

Sincerely,

Jason Donchin

Attachments

Attachment D

Previous Title V Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1128-116-62

EXPIRATION DATE: 02/29/2016

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383) & 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE

PERMIT UNIT REQUIREMENTS

1. No modification to the 1Y Kaldair emergency flare shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Upon seven days prior written notice to the District, the 1Y Kaldair emergency flare may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4311] Federally Enforceable Through Title V Permit
3. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the permittee shall not be required to perform the monitoring and recordkeeping requirements otherwise required by this permit and Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of the 1Y Kaldair emergency flare, recordkeeping and monitoring requirements otherwise required by this permit and Rule 4311 shall resume. [District Rule 4311] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]
7. If the 1Y Kaldair emergency flare has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The Kaldair flare shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The air-assisted John Zink flare shall not discharge air contaminants into the atmosphere which exceeds 5% opacity or Ringelmann 1/4 for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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10. Operation of flares for other than maintenance and testing shall be limited to unforeseen electrical power outages or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) is not due to neglect or disregard of air pollution laws or rules; 2) is not intentional or the result of negligence; 3) is not due to improper maintenance; 4) does not constitute a nuisance; and 5) results in the use of equipment exempted from offsets by Rule 2201 to prevent or ameliorate an unsafe situation. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The owner or operator shall notify the District of any emergency use of the flare within twenty four hours after confirmation that an actual flaring event has occurred. In the event that confirmation of an actual flaring event cannot be made, then the owner or operator shall notify the District no more than 24 hours after an alarm indicates that a flaring event may have occurred. [District Rule 1070 and 4311] Federally Enforceable Through Title V Permit
12. The permittee shall report to the District in writing within ten days following the emergency use of the flare(s). The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use, specifically including duration of flare operation and amount of gas burned. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit
13. Operation of each flare shall not exceed 200 hours per year for purposes of flare maintenance and testing. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The Kaldair flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (2442 lb NOx/year), 322,538 lb SOx/year, 0.708 lb PM10/MMBtu (24,190 lb PM10/year), 0.063 lb VOC/MMBtu (2263 lb VOC/year) and 0.37 lb CO/MMBtu (13,290 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
15. The air-assisted John Zink flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (672 lb NOx/year), 20,000 lb SOx/year, 0.708 lb PM10/MMBtu (3894 lb PM10/year), 0.063 lb VOC/MMBtu (622 lb VOC/year) and 0.37 lb CO/MMBtu (3656 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Sulfur compound combustion emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801] Federally Enforceable Through Title V Permit
17. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
18. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
19. Each emergency flare shall be equipped with a functional continuous flame detection device to detect at least one pilot flame or to detect the presence of flare flame. [District Rule 4311] Federally Enforceable Through Title V Permit
20. Fugitive VOC emission rate from fugitive component counts of the TEOR vapor control system, calculated using U.S. EPA publication 453/R-95-017, Table 2-4, based on 50% VOC by weight of Total Organic Content (TOC), shall not exceed 268.3 lb/day. [District Rule 2210] Federally Enforceable Through Title V Permit
21. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520 and 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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23. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit
24. If operator determines that the flow back system does not operate successfully, then the flow back system may be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Existing Tulare injection wells are authorized to operate as either flow back wells or injection wells until such a time as the DOGGR injection permit for the existing Tulare injection wells is terminated. Upon termination of the Tulare injection well permit by DOGGR, the existing Tulare injection wells will continue to operate as flow back wells only or be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407] Federally Enforceable Through Title V Permit
27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
28. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 14, 2006). [District Rule 4401] Federally Enforceable Through Title V Permit
29. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. This requirement does not apply to cyclic wells located on contiguous and adjacent oil production properties with less than 10 cyclic wells owned by or under the control of a company. [District Rule 4401] Federally Enforceable Through Title V Permit
30. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of allowable leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit
31. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401] Federally Enforceable Through Title V Permit
32. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401] Federally Enforceable Through Title V Permit
33. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401] Federally Enforceable Through Title V Permit
34. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401] Federally Enforceable Through Title V Permit
35. All records of required monitoring data and support information shall be maintained, retained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4401] Federally Enforceable Through Title V Permit
36. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401] Federally Enforceable Through Title V Permit
38. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle [District Rule 4401] Federally Enforceable Through Title V Permit
39. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401] Federally Enforceable Through Title V Permit
40. Leak inspection and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit
41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit
42. Unless waived by the District, the operator shall maintain source test records which show that the control efficiency requirements have been satisfied. [District Rule 4401] Federally Enforceable Through Title V Permit
43. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
44. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
45. The operation includes heat exchanger(s), gas/liquid separator(s), condensate tank(s), compressor(s), gas volume flow rate and temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The system includes gas piping from vapor control systems 36W #1 TEOR S-1128-116, 31X TEOR S-1128-128, 36W #2 TEOR S-1128-130, 5Z/6Z TEOR S-1128-144, 31X tank battery S-1128-248, Mckittrick Diatomite TEOR S-1129-864, and 1Y TEOR S-1128-385, and TEOR flow back vapor collection from Tulare formation wells (previously used for disposal). [District Rule 2201] Federally Enforceable Through Title V Permit
47. John Zink flare field sour gas line shall be equipped with an operational flow meter. John Zink flare pilot gas line shall be equipped with an operational flow meter and pilot gas flow rate shall not exceed 12000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
48. Kaldair flare pilot gas line shall be equipped with an operational flow meter, except when designated a DEU, and pilot gas flow rate shall not exceed 4800 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Only PUC quality natural gas shall be used as pilot gas in the flare. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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50. When operated, each flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520] Federally Enforceable Through Title V Permit
51. Permittee shall measure and maintain a daily record of flare pilot gas volumes, John Zink flare field sour gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rule 2201] Federally Enforceable Through Title V Permit
52. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s), and shall make such listings readily available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
53. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1128-934-7

EXPIRATION DATE: 02/29/2016

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

PERMIT UNIT REQUIREMENTS

1. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
2. Demonstration of compliance with the visible emissions limit of this permit shall be conducted using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
6. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
7. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
8. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
9. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
10. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
11. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. If flare is not operating, gas shall not be vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Gas flow rate to flare, except pilot fuel, shall not exceed 140,400 dscf per day. [District NSR Rule]
14. Gas flow rate to flare, except pilot fuel, shall not exceed 2,500,800 dscf per year. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Pilot fuel gas flow rate shall not exceed 7,200 dscf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Concentration of sulfur (as H₂S) in gas flared shall not exceed 30,000 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H₂S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM-10: 6.4 lb/mmscf; NO_x (as NO₂): 54.4 lb/mmscf; VOC: 50.4 lb/mmscf; or CO: 296.0 lb/mmscf. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Emission rate from pilot gas shall not exceed any of the following: NO_x (as NO₂) - 68.0 lb/MMscf, VOC - 63.0 lb/MMscf, CO - 370.0 lb/MMscf, PM10 - 8.0 lb/MMscf, or SO_x - 2.85 lb/MMscf. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain daily and annual records of pilot fuel gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

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